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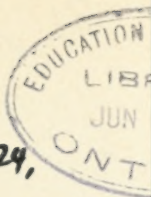


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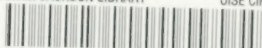


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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1917, No. 26

GARDEN CLUBS IN THE SCHOOLS OF
ENGLEWOOD, NEW JERSEY

BY

CHARLES ORCHARD SMITH



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GARDEN CLUBS IN THE SCHOOLS OF ENGLEWOOD, NEW JERSEY.

AUSPICES.

The garden clubs of the Englewood schools were organized during the summer of 1916 and were directed by the local board of education and the superintendent of schools through a supervisor of gardens employed for this special purpose. Owing to the experimental nature of the work and the lack of funds at the command of the board of education, the enterprise was financed in part by the Civic Association of Englewood and in part by the State of New Jersey, under the provisions of its manual training laws. In July, 1917,



PART OF THE SPRING TRIALS FOR A STEADY JOB.

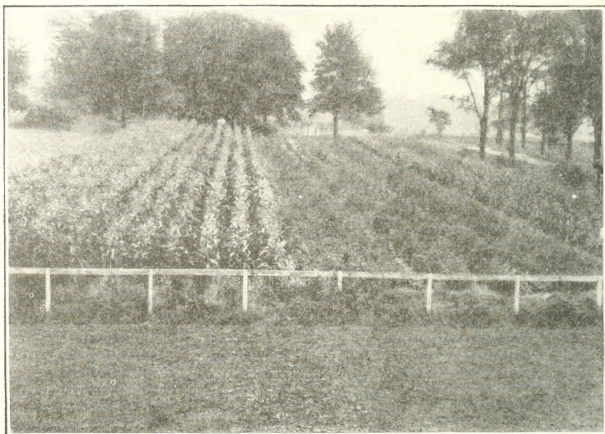
however, that part of the expense hitherto met by the Civic Association was assumed by the board of education.

PHYSICAL AND SOCIAL ENVIRONMENT.

Englewood is a suburban residential city of about 12,000 inhabitants. In its vacant lots and back yards it has an abundance of land suitable for gardening. Much of the city lies in the desirable sandy loam soils of northern New Jersey. It is not a locality without obstacles, however. A considerable part of the inhabited area is on the swampy lowlands at the head of the New Jersey salt meadows,

and another section is on the rough western slope of the Hudson River palisades, where suitable locations are difficult to find.

Many of the children's homes are dingy quarters in crowded



THE GARDEN IN MID-SEASON.

tenements throughout a limited congested district in the low-lying area, so that the contact with nature afforded by the garden work is wonderfully inspiring; and it is especially gratifying to the interested



"WHAT HAS EATEN INTO THE HEART OF MY CORN STALK?"

adults. For instance, one high-school boy, who in the spring of 1916 planned great things, said that he had no place for a garden but suggested carrying a little earth to the roof of the tenement

in which he lived. He is now operating a garden of 3 acres in partnership with two other boys. What a little garden work will do for a boy is also brought out by another member of the same partnership. He is the only one of the three who has the good fortune to live in a house surrounded by a yard. In the spring of 1916 this boy displayed his lack of knowledge concerning the out-of-door world by saying, "Last year I planted some seeds about a foot in the ground, and I don't see why they didn't come up, because I sure did plant them good and deep." The fact that he has undertaken a task as large as the present one is in itself proof of what he has gained.

Aside from the common-sense information concerning the out of doors derived from such an enterprise as these boys are undertaking, the business training secured by planning, managing, selling the products, and recording the results of their work is of signifi-



MANY TIMES A QUESTION ANSWERED ALONG THE STREET HAS IMPORTANT RESULTS.

cant value to all the children, very rich and very poor, and of perplexing racial differences such as are found in the suburbs of a great city. All kinds of business, from the most gigantic commercial and banking undertakings known to New York City to the most limited second-hand dealing and pawn brokerage, will be the life work of these boys, sons of men who are at present engaged in such occupations.

As in all other public-school activities, equality of opportunity is especially marked in the garden club groups. The home life, as well as the school life, of each member becomes familiar to the others of the group, with its undeniable influence in bettering that of all the members. In this association, it is almost impossible for any member to overlook the sterling qualities in his club mates. Community

of effort teaches helpfulness and cooperation, not by theoretical expression, but by vitalized experience. The boys from the rich homes and from the poor find much in common.

ORGANIZATION.

Registration.—When the proper time came the superintendent of schools briefly explained the undertaking to all the children of each school in a general assembly. The supervisor then gave some further instructions and distributed registration blanks.¹ These were taken home by all the children electing the work, filled out, and returned the next day. At this time the supervisor of gardens went over the slips with the principal of the school, whose approval every participant was required to have. If the blank was not satisfac-



A GROUP OF GIRLS LEARNING HOW TO SPADE.

torily filled out, but the child approved, the parents were visited by the supervisor and the blank corrected. Each child who was thus registered then took complete charge of his project, which he was expected to carry out with the supervision and advice of his parents and of the supervisor of gardens. The project, aside from caring for a garden, included the maintenance of a careful record¹ of all activities connected with it.

The records of the children.—This record when complete contains certificates of recommendation and approval; personal information concerning the child; a photograph of the child in his garden; a working plan of the garden drawn to scale; an itemized and summarized financial account; a record of marks given the garden by the instructor on visits to the garden; and a story of the season's work in essay form.

¹ See section on "Blanks and Circulars" (p. 29) for this record blank.

Division of pupils.—All the children undertaking the work were organized into clubs of about 15 members each, of about the same age, of the same sex, and from the same school. By this plan all the homes of the children in each club were close enough so that each member could see what the others were doing. Each club was organized and conducted by the children under the direction of the supervisor. The clubs were merely a division of the children for convenience in supervision and instruction.

A competition.—The members of each club competed among themselves for inexpensive prizes. The children were to have been marked on the basis of 100 per cent as perfect, with one-third of the credit coming from their garden, one-third from their records, and one-third from the showing which they made at the exhibit. This



ANOTHER GROUP IN THE SAME YARD RAKING THEIR PRACTICE PLOT.

method of calculation had to be abandoned on account of the board of health ruling, however, and instead, three-fourths credit was given on the garden and one-fourth on the record. The premiums awarded on this basis were buttons from a progressive series designed to be awarded for achievement. The same series is used in the boys' and girls' clubs of the United States Department of Agriculture. From each club the contestant having the highest average was given one of the first buttons of the series made of rolled gold. The contestant having the second highest average was given one of the same buttons made of sterling silver. All the other members having an average of 75 per cent or above received a bronze button of the same design. The competitor who had the highest average of all the pupils of all the clubs received one of the second buttons of the series made of solid gold. The same series of buttons will be used progressively in the future.

Just as the individual members strove for excellence among themselves, so did the clubs and the schools. The school having the highest average among the garden club members attending it was given a banner. This banner is the first in a series designed with a similar idea as that carried out in the buttons awarded to the individual prize winners.

This plan of premium awards always leaves something open to be achieved. It is inexpensive and makes possible the awarding of many merits. This in turn gives every child an ample chance to start toward the final goal. If a pupil does good work but does not stand first, he is given something to show for his efforts and something as a basis to work on in the future.

Meeting places.—The meeting place of each club gathering was determined by the object of the special meeting. The preliminary



ONE WAY OF COVERING SEED.

planning and ordering of seeds was done in the schoolhouse. Demonstrations in garden preparation, seed sowing, and cultural methods were held in back yards and vacant lots. Street corners were used as meeting places for starting trips to the surrounding commercial trucking region. Two of the older groups met in one of the school yards several times to aid in the construction of hot beds and receive instructions for building them.

INSTRUCTION.

The methods of instruction varied in accordance with the season. During the late winter and early spring the classroom method was followed. Necessarily the work done at this time was varied. Some of the time was spent in talking over the different garden practices

and methods, some in seed-testing demonstrations, and some in drawing plans and working out schemes for the summer's work.

Just as soon as the ground could be worked demonstrations were held to illustrate the problems which would be met by the children when they started to work their gardens. With the least experienced children, and there were many with no experience, the most difficult task was to teach them how to handle garden tools. The handling of tools combined with their many uses comprised a problem difficult to the small beginners.

Along with the classroom work and demonstrations, postcards and circulars of different kinds were found valuable. Several short leaflets on timely subjects were written and distributed by the supervisor. Publications of experiment stations, and one of a seed firm, were also used.



ALL SEEDS PLANTED ARE CAREFULLY LABELED.

A still broader view of vegetable gardening and agriculture in general was afforded the children through automobile trips into the rural districts. Englewood lies near some of the best vegetable, fruit, poultry, dairy, and general farms of New Jersey. Many of these were visited. The trips proved to be greatly enjoyable and inspiring, as well as instructive to the children.

Without doubt the most valuable instruction of all was that offered to each child individually. As in all cases of practical agricultural teaching, the school garden instructor, when dealing with a class, must treat his subject for the most part in general terms. It is difficult for anyone to put these generalities into practice under a variety of unexpected conditions. For the child it is next to impossible. Consequently, a question answered at school or on the street

was of particular value to the work, but most satisfactory were the instructions given in the individual gardens.

Vegetable gardening, on a larger scale than is usually possible in the back yard of a city lot, was taught by means of a demonstration garden. Since it served as an ideal for many people, and offered experience of a rather extensive sort to a considerable group of boys, it will be described somewhat fully.

The demonstration garden.—About an acre of ground located on one of the main streets, just opposite a school building, was used during the summer as a demonstration garden. This was planted with three varieties of sweet corn, three of tomatoes, two of egg plants, two of peppers, two of turnips, three of radishes, endive, and potatoes. It served as a working place for several boys who were chosen



MAKING A STRAIGHT SEED TRENCH WITH THE USE OF A GARDEN LINE AND THE HANDLE OF A RAKE.

on a competitive basis to do the work. The chief value of the garden came as an object lesson to the community.

The planting was done by the school janitor and the instructor, with the aid of several of the boys who were more than glad to lend a hand. At the time of planting, the ground was in rather poor condition, as the weeds which were previously growing on it were not entirely covered in plowing. Thus by the time the crops were large enough so that hoeing and weeding could be started, they were nearly hidden with weeds. Some of the daisies were actually in bloom. This made an excellent opportunity for trying out prospective workmen, although the conditions for a successful garden were far from perfect. The garden had to be gone over several times during the first cleaning, whereas once would have been sufficient if the land had been more carefully plowed and harrowed.

During most of the summer there were but two boys working on the garden at one time. These were selected from a large number who originally applied, by a competitive system based mainly on the amount and quality of work which they accomplished while not under supervision. At the time, they did not know that they were being watched, although they did realize that if their work was good enough they would be given permanent employment. In this way trustworthy boys were chosen, and as a result very little supervision was needed to carry on the work successfully. The part of the project which required the most time on the part of the instructor was the supervision of the marketing.

The size of the project made possible a great deal of instruction which would have been impracticable on a smaller plot of land.



SOWING THE SEED.

The boys were taught to operate wheel hoes, as well as to remove weeds, and to make a dust mulch with their hands and a garden hoe. They were taught to tie tomatoes in several ways and to compare the results with those which were not tied at all. A small sprayer gave them an opportunity to learn about spraying, the mixing of spray materials, and the function of each ingredient. When the crops were harvested they learned something about salesmanship. All work done during the day was recorded at night.

The boys who worked at the garden were paid 15 cents an hour, except for selling, for which they received a commission of 20 cents on each dollar's worth of vegetables they sold. In this way the boys, all of whom ranged in ages from 10 to 15 years, were able to earn good wages. The plan was so satisfactory to the boys that 33 such gardens were started in the spring of 1917 as individual undertakings.

Assignment of plats.—With the exception of the children living in the congested part of the city, most of the garden club members had their plats in their back yards. The children who lived in the tenements and in other buildings of the same neighborhood were provided with plats of a reasonable size near their homes. These were located in two vacant lots. One was occupied by boys and the other by girls. The vacant lots were staked off into plats of different sizes to meet the needs of different children, and each plat was surrounded by a path $2\frac{1}{2}$ feet wide. Each child was assigned to a plat of his own in the spring, which he was required to spade, plant, and care for throughout the season. Any child neglecting to care for his garden and the surrounding paths in a satisfactory way was deprived of further use of it.



TRAINING TOMATOES.

PRELIMINARY WORK, SOIL PREPARATION, PLANTING.

Garden planning.—Actual operations went hand in hand with instruction, which was in most cases very minute. This was especially true while the children were drawing to scale preliminary working plans of their gardens. A great deal of individual instruction was necessary at this time for two reasons: First, because of the varying knowledge of the subject among the children; and, secondly, because of the completely different problem which each child had to solve. Many children had never had any garden experience at all; some had helped their parents who were experts, and were familiar with the growing habits of plants, garden equipment, and the use of fertilizers and sprays. These differences of gardening knowledge, combined with just as great differences in knowledge of arithmetic and drawing, shown by the children in putting on paper the plans for

the summer, made the preliminary planning especially difficult for each child. To add to the difficulty each child had an individual problem to solve. Every garden differed in topography, shape, size, soil, surroundings, and vegetables to be grown. As a result, every drawing was different, and the scales used in drawing were in many cases necessarily of a different degree to accommodate the differences in the sizes of the gardens. This makes plain the necessity of the careful individual instruction which was required while the children were doing this part of their work.

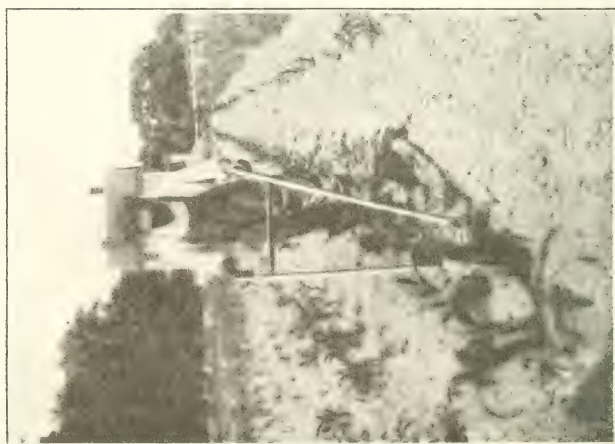
Preparation of soil.—The same minute care was necessary when the time came for preparing the garden. Each child, if large and strong enough, was required to do his own work. All were told at club meetings and shown in groups at demonstrations just how to clear off the land, fertilize, spade, and rake the soil. Their varying



SELLING THE PRODUCE

knowledge in regard to these points also made individual instruction necessary. The combination of factors unknown to the children were not so numerous in this work as in garden planning, however, which made demonstrations especially helpful, and reduced the amount of individual instruction necessary.

Clearing off the land.—The two great obstacles in clearing off the land were the accumulations of rubbish and the dense growths of briars and small trees. Near the center of town, vacant lots and many back yards were covered with heaps of tin cans, old shoes, umbrellas, bottles, and all the other things that go to make up a real trash pile. More difficult to remove than these, however, was the vegetation which was most common in the outlying parts of town. Here each brier and sapling had to be removed root and all, a task which in many cases proved long and difficult. In all cases of clearing the soil,



TOOLS PRACTICAL IN LARGE GARDENS WERE USED.

however, the supervisor found that if he himself entered into the work, soon the boys of the whole neighborhood would be on the ground ready to lend a hand.

Spading.—After the soil was cleared, spading was the next operation. Here again individual instruction had to accompany the work of the children. Especially was this the case among the children of the tenement district. All steps—including the pushing of the spading fork deep into the ground; the easy way of lifting it when full of soil; the turning of the surface rubbish, manure, and sod down and the loose soil up; and the breaking of clods—were of necessity carefully explained.

Raking.—The knack of making a smooth seed bed with a rake, which comes only with much practice, was apparent in the final



IN THE CORNFIELD

work of only a comparatively few children. All but a very few, however, did manage to get their gardens into fairly good shape for planting after much effort with both edges of the rake.

Planting.—In sowing seeds and moving plants, most of the children made their rows straight and parallel by means of a garden line and a rule. Some, however, used a board where the rows were short. They made their trenches with a rake handle, the back edge of a rake, a hoe, or the edge of a board. In some cases the seed was scattered by taking a handful and working it over the index finger with the thumb. In other cases the seed envelope was cut straight across one end and the seed distributed by shifting the envelope to right and left with the cut edge above and parallel

to the trench. When the time came for covering the seed and firming the soil, most of the children liked best to do the work with their hands. Others used the back edge of a rake, and some made a plow of their feet, taking short steps as they covered the seed and firmed the soil at the same time. While the latter method is amusing to the children, it is not very satisfactory. In moving plants the soil was carefully firmed about the roots. The most diligent of the children labeled each row in their garden with a stake. This bore the name and variety of the vegetable, the name of the seedsman, the dates of planting and transplanting.



THE WORK DONE DURING THE DAY WAS RECORDED AT NIGHT.

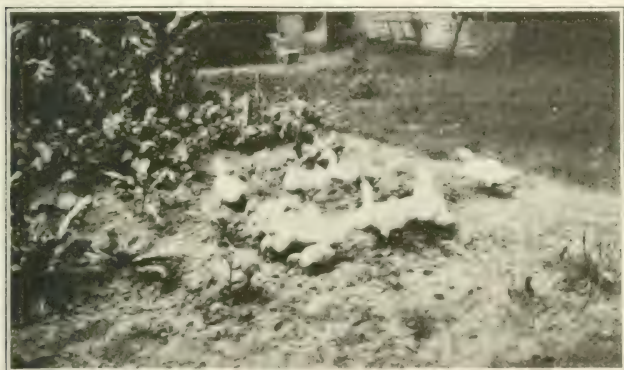
SEEDS.

The necessity of using good seed was impressed upon the children through bringing out the importance of labeling everything planted, so that a complete record could be kept of the seed used and its desirability. Seed-testing demonstrations during the late winter served the same purpose. At every opportunity the importance of dealing with reliable seed firms was impressed upon the children.

The seeds used by the children were purchased from well-established dealers. A few were donated. They were all procured in wholesale lots and then put up in small packets by some of the children under the direction of the instructor. Each packet was labeled by means of a rubber stamp as to the kind of seed it contained, the variety, the seedsman from whom it came, and the approximate date for planting.

The instructor's corrected copy of the rough working plans of each child's garden was used in place of an order sheet for each child. This was done by estimating from it the number of packets of each kind of seed which the child would need. This copy of the garden working plan and the packets of seeds necessary for each child were put into a large envelope which bore the name of the child to whom it was to be delivered.

The value of each child's seeds was also put upon the envelope. The total cost of the seeds was divided among the children as accurately as estimates of possible sales allowed. Each child was charged proportionately as the amount of seed he purchased bore a relation to the total amount of seed purchased in bulk for all. This method of handling the seed proved very satisfactory, but unless a great deal of seed is to be distributed it would be more convenient to purchase



DUCKS, TURKEYS, SPARROWS, GOATS, DONKEYS, COWS AND OCCASIONAL UNSYMPATHETIC CHILDREN ARE PESTS TO BE GUARDED AGAINST.

the seed from some commercial house which is equipped to make up small orders such as children are likely to need.

OTHER SUPPLIES AND EQUIPMENT.

Early plants.—Most of the plants used by the children were purchased by them directly from the local dealers. Some were given to the children by neighbors. A few were donated to the organization, which in turn distributed them among the children. There was no set method used by the clubs for furnishing plants to the children. During the coming season provision will be made for this branch of the work. Some members have built hotbeds, in which they will grow their own plants.

Fertilizers and spray materials.—Children were instructed in regard to the application of fertilizers and spray materials, and were encouraged to use both freely. In so far as fertilizers and spray materials were used, they were procured by the children independently of the clubs. Stable manure was probably the most common fertilizer. The children were also told to save any wood ashes, leaves, or other litter which they might have, for composting.

Tools.—With the exception of the tools furnished to the children from the crowded section of town, the tools employed belonged to the garden owners or their parents. The children who had plats furnished them generally needed the tools provided also. There should be a well-equipped garden house at every group of gardens operated by children who do not have their gardens in their back



A NOT UNCOMMON PEST, BUT EASILY CONTROLLED:

yards. The children should be free to go for their tools at stated times when there is some one present to distribute them.

CARE OF THE PLATS.

The plats were in most cases cared for by the children alone. Some children received no instruction except from the supervisor; others were taught also by able parents and friends. This is the ideal way if the parents do not do too much.

Most of the children did their weeding and cultivating with hoes, rakes, and hand weeders, and by hand. A few had the use of a hand cultivator. More hand cultivators will be used in another year.

Every imaginable sort of trellis was used for beans, tomatoes, and peas. Trellises were made of poles, brush, and wire, and in an endless variety of ways. All were most interestingly constructed.

The control of insect pests and plant diseases was rather limited. Some spraying was practiced, however, and many of the larger insects, such as the Colorado potato beetle, were killed by hand. Dusting to repel insects was practiced perhaps more than any other form of pest control. These methods of pest control are not discussed in full, because of lack of space, and also because information on the subject can be procured from any of the State experiment stations, or the United States Department of Agriculture.

PETS AND PESTS.

Aside from the insects, plant diseases, and weeds, which make up the army of pests that infest the growing crops of the truck farmer, the city gardener has problems in regard to chickens, dogs, birds,



WELL PROTECTED—NOTE THE FENCE.

and other animals which at times become very trying. A child with very little capital, to take the proper precautions against the dangers involved by undertaking too many lines of agriculture on a city lot, finds this especially true. To some extent, the truck farmer is troubled by the same pests; but he usually owns the domestic animals within a dangerous distance, and has ample equipment for keeping them under control. If they are not his the neighbor to whom they do belong likely has a garden of his own, and so the trouble is averted.

In addition to the difficulties arising from these different interests, those arising from the number of animals in proportion to plants is very noticeable. In towns and cities, especially in some localities, the dogs, cats, chickens, sparrows, and other animals abound in great numbers. The difficulty is magnified when these animals are kept

in check by the inefficient methods of the child or the indifferent attempts of a neighbor who has no garden at all, or has it safely inclosed, and prefers to let his animals run at large. In such a place, the task of raising good vegetables becomes extremely difficult. Especially is this the case, no matter what the enthusiasm of the child, when the neighbor sees a small garden and has the unfortunate opinion that, because the attempts of the child are small and in proportion to his age or size, they are unimportant. As a matter of fact this situation is not common, but it is regrettable to find it at all.



THE SAME GARDEN AS ON THE OPPOSITE PAGE, LATER IN THE SEASON.

Insects, plant diseases, and weeds are not discussed here because they are so commonly recognized, and because they are mentioned at different places throughout this report. Of the other pests that belong in the class to which the title of this discussion refers, chickens were likely the most numerous, although not always so totally destructive as some other animals. One boy attempting to establish a garden in a back yard alive with the dogs and chickens of the neighborhood decided that the safest way was to turn his chickens loose and use their inclosure for the garden.

Next to chickens, dogs and birds probably did the greatest total damage. Here again, however, their destruction in any one garden was not complete, and so the results to any one owner were not so disastrous. Their damage was largely done in the early part of the

season when the plants were small or even before they appeared above the ground. The dogs accomplished their destruction by running through the garden and in many cases were held in check very well by a low fence which diverted their path. The birds, especially the starlings and English sparrows, did their greatest damage by eating the tender leaves of young vegetables. They seemed to be especially fond of lettuce and peas. A string ornamented with strips of white cloth when stretched along the rows of vegetables served to keep them away to some extent as long as the wind was blowing so that the cloth fluttered about. This method, however, was not wholly effective. I have known some adults to go so far as to cover their lettuce with wire netting in order to protect it. The owners of one garden, recog-



A LOW GARDEN, SUBJECT TO OVERFLOW, RAISED INTO BEDS TO AVOID DAMAGE FROM WATER.

nizing the danger from birds, dogs, and small brothers and sisters, without any suggestion from the instructor built a fence of store boxes to guard against dogs and children. Their precautions against the inroads of birds were most elaborate, consisting of a scare crow and several strings of cloths.

In at least two cases near the outskirts of town, cattle totally destroyed the gardens of members. Other animals which did considerable damage were ducks, rabbits, donkeys, and goats. A colored girl who owned a garden of merit, besides having about 15 ducks and an ever-increasing number of rabbits on a lot 50 by 100 feet to contend with, was blessed with dogs, cats, chickens, and pigeons. They all had their own homes, however, and for the most part behaved very well.

Some difficulty was experienced with children bothering each other's garden. Fortunately this matter was easy to control. There

was, indeed, one garden which was completely destroyed in this way, and a few other cases where some injury was done. Most of the damage occurred in sections where gardens were in groups. The garden which was completely destroyed came to a sad end because it was constantly improved with plants taken from adjoining gardens. The boys who owned the surrounding gardens were unable to appreciate such a thrifty method, and expressed themselves definitely. On the whole, however, the boys and girls respected each other's work and treated it accordingly.

Trees were the cause of many partial failures. Their branches cut off the necessary sunlight, and the roots robbed the gardens of their moisture and plant food. When many trees were present the efforts of the children were poorly paid.



SAND-PIT SHOWING CAUSE OF EXTREME DRYNESS IN SOME PARTS OF TOWN.

EXCURSIONS.

The members of the gardening clubs were taken in club groups on automobile trips through the neighboring agricultural region. The citizens of Englewood were very accommodating with their cars, so that it was possible to take a different group on every day from July 5 to July 13, with the exception of Sunday, July 9.

Some of the points of interest visited were well-managed upland truck farms, muck-land vegetable farms, fruit farms, a duck farm, a chicken farm, a dairy farm, a stock farm, seed-testing grounds for a large New York concern, a nursery, and the school gardens of a neighboring town. The following essay will give some idea of the value of these trips. It was hurriedly written some time after the trip by a boy who was making his first trial at gardening. He and

his brother were the only ones asked to write reports. The instructor requested these only that he might have some idea of what value the trips were to the children. The writer whose essay is copied here did not mention several of the stops and has confused the order of others. Several doubtful statements are credited to the instructor, and many details are lacking. On the whole, however, it is very satisfactory.

[A boy's narrative of a trip to a farm.]

A GOOD TIME AT VISITING FARMS.

When we started Mr. Smith told us to watch all the farms and what they raised and how it was kept. We started out with four seated in the back;



A LOW GARDEN, SUBJECT TO OVERFLOW, RAISED INTO BEDS TO AVOID DAMAGE FROM WATER.

three on the floor and Mr. Smith and the chauffeur in front with a small boy on Mr. Smith's lap.

The first farm we saw was one on Teaneck Road. It had corn, spinach, and tomatoes. Farther on we saw a rhubarb farm. The plants were about 2 yards apart. You could see even paths through the plants. The rows were hoed and clean kept. Mr. Smith told us that only labor and patience could keep the garden so well.

We passed many cornfields. Our first stop was at an old school. When we went out of the auto we noticed an old bell in the tower. The first thing we did was to see who could hit the bell first. We threw for about five minutes and then the bell was hit. Afterwards Mr. Smith took out two bags of peanuts and told us to stay about 20 feet from him. He took one bag and threw the peanuts into the air. Then there was a mix-up, everybody went for the peanuts. The second bag was thrown by the chauffeur. While we were holding up our hands to catch the peanuts Mr. Smith took our picture.

A little further up the road Mr. Smith told us that we were coming to a place where celery, onions, and parsley could only be raised. This place was

once a large lake, but the trees and shrubs sucked the water out and it formed a swamp. The farmers came and girdled the trees and dug up the soil, which was very black. The soil, which is called muck, is so rich that only vegetables that need a good soil can be raised there. When we came to the place we saw long rows of celery in a rich, black soil. Some of the rows had boards alongside of them. These boards were to keep the sun from the plants and make the stems white. The rows were about a yard and a half apart. In the middle of each row was a row of smaller plants, so when the larger ones were gone these would take their places. We came to a place where corn was growing among peach trees. This is called intercropping. When the trees get larger the farmer will have to stop planting stuff there. We saw tomatoes and potatoes growing among apple trees.

We went up a tall hill and saw for miles around farms and farms.

Our next stop was at a chicken farm. We did not see many chickens because they were in the fields. The farm had an incubator that contained more



A GOOD GARDEN RAISED ABOVE THE LOW GROUND TO THE LEFT, TO AVOID FLOODING. NINE YEARS OLD.

than a hundred cells and 48 eggs in each cell. The incubator contains 7,800 eggs. When the young chickens are old enough they are put in small coops. In the center of every coop is a round cover with small pieces of cloth hanging down. This is used as a mother.

We left this farm and rode around. Then we went to a duck farm. We went into the house where they make the food for the ducks. This is done by machinery. The farm held 18,000 ducks. The coops held ducks of different sizes. All you could hear was "Quack." The incubator room was so hot that we had to run out. Mr. Smith took our picture watching the ducks.

From here we went home. On our way we passed the Tenafly School gardens and the Cleveland School gardens. At the end of the trip we found that we had gone 30 miles in three and one-half hours.

I forgot to tell you about the pole-bean farm we saw by the schoolhouse. In whatever direction you looked was a straight line of poles.

It can plainly be seen that the essay is not a lesson in composition, although it might well be made so. Some confusion is evident. For

instance, the boy received a hazy idea of the formation of much land, probably because of the necessarily hurried way in which it was explained. He did, however, learn that there is such a soil form and that in it grows most of the onions and celery which he eats. Many first-hand impressions of his surroundings which are of value and could not otherwise be adequately taught are evident from the report.

INFORMING THE COMMUNITY.

The publicity work connected with the project was of the utmost importance. This was carried on in a variety of ways. Newspaper



VISITING A SEED TESTING GROUND.

articles were used extensively. Gardens were labeled, and the one used for demonstration purposes was marked with a large sign. The produce sold was advertised as being grown by the garden clubs. That from the demonstration garden was sold from house to house with the idea of bringing the work to the notice of as many persons as possible.

On the Fourth of July the local board of trade conducted a parade in which the garden clubs participated. A small float decorated with vegetables from club gardens was drawn by two boys dressed as farmers. This was followed by a procession of other boys wearing overalls and straw hats and girls decked in sunbonnets and aprons.

They all carried hoes, rakes, or banners. For their showing in this event the clubs received a special prize of \$25.

Another form of publicity was the distribution of three preliminary reports. These were in typewritten form and were profusely illustrated with photographs. They were distributed in such a way that a great many persons were able to see them. Whenever one group of persons had finished with them, they were returned and sent to another group.

FOLLOW-UP PLANS.

The plans for the season of 1917 were based on the experience gained through the work done during 1916. An extension of the work with home gardens, group gardens, demonstration gardens,



NURSERIES ARE INTERESTING PLACES FOR EXCURSIONS.

and vacant-lot gardens, with slight modifications in systems of management, was provided. Plans for club organizations and competitions were based more definitely on existing school rivalry. New elements of organization and competition were introduced to meet the needs arising with a large number of vacant-lot gardens. Provision was made for some children who do not care for the clubs, but who wish to have supervised gardens. The method of registration included a personal visit to each home. Seed was sold to the pupils of all grades. Pupils below the fifth grade were not included in any of the clubs, but their gardens were visited and small premiums were awarded to the best of them. The record forms to be used by the children and the instructor were revised. Besides continuing on a

larger scale the methods of instruction used in 1916, lantern slides for explaining different operations were employed. Additional help for the supervisor was provided for in the new plan.

BLANKS AND CIRCULARS.

The following pages illustrate the blanks and circulars used. The record book used by the child and the teacher's record sheet were slightly revised for use during the season of 1917. The main features are the same, but some changes have been made to meet a few new conditions which have arisen. For instance, the old record provides for no place in which the child could keep a record of money loaned to it for seed and plowing. With large gardens coming into favor, a need for such a form has arisen. Most of the printing was done by the school vocational class.



A SMALL FLOCK OF HENS ON A LARGE POULTRY FARM.

A student's record.—The following completed record is not the best from the standpoint of neatness and literary execution. It was selected because the boys (two brothers) who operated the garden probably learned more about intensive garden practice than any of the other members of the clubs. They also kept their financial record in a creditable manner. How new they were to this work is evidenced by the fact that these two boys spaded under an unused back yard last season to make their first trial at garden work. In some instances the certificates of only one of the boys are shown.

REGISTRATION BLANK OF THE ENGLEWOOD GARDENING CLUB.

Name _____ School _____
 Home _____
 Age _____ Grade _____
 Have you a back-yard garden spot? _____
 If so, give its dimensions. _____
 What garden tools have you? _____
 Have you money for seeds? _____
 Have you ever worked in a garden? _____
 Do you expect to be in Englewood all summer? _____
 If not, how long will you be away? _____

I hereby approve of my _____ becoming a member of the Englewood Gardening Club during the summer of 1916.

 Parent.



A TYPICAL GARDEN EXCURSION.

Teacher's record sheet.—The form of record sheet used by the instructor follows:

School _____ Grade _____ Name _____
 Age _____ Address _____

	Seed finances.		
	Date.	Terms.	Amount.
Location of garden _____			
Size of garden _____			
Experience _____			

RECORD OF VISITS.

Date, _____	Recommendations, _____	Grade, _____
_____	_____	_____
_____	_____	_____

One sheet was kept for each child. References were made to this sheet by means of an alphabetical list and a list arranged according to the location of the child's home.

Printed circulars.—The following are circulars which were written by the supervisor and distributed among the children. Aside from these, circulars from commercial houses and experiment stations were used.

THE WEED BATTLE.

Now, that your crops are planted and have started to grow, or will start to do so in a short time, you ought to turn your thoughts to the care of the small plants. There are at least four enemies of these little, tender baby plants which you will have to fight if your garden is to be successful. The first of



AN OBJECT LESSON IN BACK-YARD CLEANLINESS.

these is the other crop of baby plants in your garden which are known as weeds. There is always a disorderly mob of these savage invaders and unless you meet them with your hands and a good sharp hoe they will overrun your smaller army of well-drilled soldier plants. Yes, the hoe must be sharp, so that your task will be made as easy as possible. With a sharp hoe the weeds can easily be made to tumble in all directions, and the straight ranks of your army will remain as you want them. [To sharpen your hoe use a file and make the edge as much like that of a knife as possible.]

But a hoe can not do the whole trick. After the main army is killed many spies will try to hide in among your plants, dressing themselves in clothes similar to those worn by your men. But you must become well acquainted with your men and not allow the little red weeds to persuade you into thinking that they are beet. These and all the other weeds that lurk as spies in among the rows of vegetables must be met in a hand to hand battle. They must all be done away with.

The sooner you do this after your plants have pushed their heads above the ground, the easier will be your task. Small weeds are usually weak and very easily killed, but large ones are very strong. If you keep the soil between the

rows of your garden well hoed and loose, many of the weeds will be killed even before they appear above the surface of the ground.

In fighting this battle, however, you must be careful not to step on your vegetables or allow them to be disturbed in any way. If the hoe should cover them with earth, as it is bound to do unless you hold it firmly and guide it carefully, remove it with your hands, disturbing the plants as little as possible: give them all the chance you can, because civilized babies can not grow well with dirty faces. Continue this battle from time to time, especially after rains, when the soil is nearly dry, and you will be a victorious general.

LOOKING AHEAD.

In doing our gardening work we must constantly be looking into the future so that we can be preparing for what is to come by what we are doing at present. Now is the time to think of what is to be done several weeks or even



A STOCK FARM WHERE HORSES, SHEEP, HOGS, CATTLE, AND ALL SORTS OF POULTRY ARE KEPT.

several months hence and to act in preparation for what is to be done then. One particular thing which must be kept constantly in mind is the public exhibit at which the things we have grown in our gardens will be shown. This exhibit will be held near the middle of September; and unless we keep it in mind from now until that time we will not make the showing which is expected of us. This will be our second public appearance; our first, in the Fourth of July parade, made a big hit, and we have to do even better in our next. But in order to do ourselves justice every one of us must play the game as if we meant it from now until the exhibit is over.

In doing our share there are two things at which each of us must work just by way of preparation: First, we must take care of our gardens in the best way we know of, so that our things will grow large and good to look at. We all know what this means—the weeds must be done away with, the injurious insects must be killed, the ground must be kept loose, and the plants must be thinned so that they have plenty of room in which to grow. If there is any-

thing that we do not understand, we can ask Mr. Smith when he calls to see our gardens, or write him a post card addressed to Liberty School.

Second, we must plant vegetables in the spaces left by the removal of the early crops. Already some of the boys and girls have planted late beets, radishes, turnips, beans, and many other vegetables which they will show at the fair. Mr. Smith can also help in choosing late crops for this purpose.

If we are not careful, some of our fellow club members who are already preparing for their part of the exhibit will get ahead of us. None of us dare allow this, because our exhibit at the fair counts one-third toward the final mark for the season upon the basis of which prizes are awarded. Aside from these prizes for the work of the season, there will be premiums offered at the fair for the best exhibits. Now let us all get to work and show the other members of the club as well as the public that we know what we are doing and that our part of the Fourth of July parade was merely a sample of what we stand for.

GARDEN CLUBS OF THE ENGLEWOOD SCHOOLS—CIRCULAR OF INFORMATION.

A START FOR NEXT YEAR.

Another thing in regard to which we should look ahead is our gardening activities for next year. Now is the time to decide on what we expect to do then. Our plans do not need to be completely made out at this time, but if the best results are to be obtained there are some things which should be done.

First of all we should decide on the size of garden which we expect to cultivate. We have all learned by a year of experience that we can make vegetables grow and have gained some idea of the size of garden that we can successfully operate. That is, we know just about how much land we can prepare for planting, plant, and care for throughout the summer. Most of us can proudly say that we feel that next year we can care for a larger plat of ground than we have now and do it in a better way than we have cared for our gardens this year. Some of us have even gotten into our heads the idea that we can use one of the vacant lots in our neighborhood for a garden similar to the one across from Cleveland School, which is owned by the garden clubs. (If you have not seen this garden, be sure to visit and ask questions of the boys who take care of it.) This is all fine, but whatever we undertake to do next year should be thought of now. The thing to do first is to decide on how large a garden we wish to care for next year.

When this is determined, the next step is to decide where the garden is to be situated, if we have not already its location in mind. The question for each of us is whether it will be in my back yard or whether it will be in a vacant lot near home. Unless our back yards do not afford a place for a garden, or unless that place is not large enough for what we wish to undertake, we should use it in preference to a vacant lot. But if we can not do as we please in our back yards, we should go to the nearest vacant lot which we think would answer our purpose and secure the use of it for next year. Mr. Smith can help you do this.

Now that the size of the garden and its location is decided upon, work should be started at once in getting the ground into shape for next year. This is very important, although it seems like a long time before the land is to be used. The good farmers that we visited on our automobile trips plan on the use of

their lands for five or six years in advance, and so, surely, we should think at least a year ahead and prepare for what is to come then.

If the garden is to be located in the back yard where a garden has been growing this year, work should be started in cleaning away all rubbish just as soon as the different crops are removed. If the season is too far advanced to plant other vegetables in the place of those that are removed, as it will likely be, the ground should be spaded and as much manure as can be procured turned under. When this is accomplished a cover crop (by this is meant a crop of some sort which will keep the rain from washing the garden during the winter) should be planted. For this purpose several things can be used. Rye mixed with winter vetch will likely be the best, although other crops may be used. If we do not know what these things are or where to procure the seed, Mr. Smith can help us.

Those of us who decide to have a garden where there is no garden now should start even earlier to prepare for next year. If our ground is covered with rubbish of any kind, this should be removed at once. Some of us will have but little rubbish, but will find our ground grown over with a heavy crop of grass and weeds. These should not be removed, but should be turned under and used as a green-manure crop, which will make our vegetables grow all the better next year. Along with these all the manure that can be had should be covered over. When this is done a cover crop like the one mentioned above should be planted. In the spring these cover crops can be turned under to act as green-manure crops, which will make a still better garden.

No, it isn't too soon to think it over, after all. When we stop to think, there are lots of things we ought to do if we are going to make the most of our garden next year. What we have discussed here is of the very most importance and applies to every one of us. There are many other things which should be thought of before next spring, and these will be taken up from time to time.

Post-card announcements.—At two different times during the season announcements were made by means of postal cards, which are copied below:

FOURTH OF JULY PARADE.

Meet on Cottage Place at 2 p. m.

BOYS carry rakes and, if possible, wear farmer hats and overalls.

GIRLS carry hoes and, if possible, wear sunbonnets and aprons.

NOTE.—If you have any vegetables that can be used in decorating a float, bring them to Liberty School about 5 p. m. Monday, July 3.

AUTO TRIP.

Meet at the school you attended last year at 1 p. m. on Thursday, July 13.

C. O. SMITH.

IMPORTANT NOTICE.

On Thursday, Friday, and Saturday, September 14, 15, and 16, the Garden Clubs of the Englewood Schools will hold an exhibit in the windows of Capestro & Co., 42 East Palisade Avenue, and J. D. Chiesa Sons, 10 Dean Street. The products to be exhibited will be collected by means of a wagon early in the morning. If you attended Lincoln School last winter, have your products ready



Preparation.



Success.

A PARADE.

on Thursday morning. If you attended Liberty School, have them ready Friday morning. If you attended Cleveland School, have them ready Saturday morning. Help to make the exhibit a success by having your vegetables clean and attractive in every way.

CHARLES ORCHARD SMITH.

Both of the times this method was used it proved to be very efficient, because all the children received notice of what was to occur at the same time and at a time when they could not well "forget" the occasion to which they referred.

Name J. Arthur Kist No. 10

Address... Elmore Ave.

Age 14 Year 1916

School Liberty School ...

Size of garden 396 Square feet

Photograph of garden and owner



CERTIFICATE

I hereby certify that, as far as I know,
this record is correct. / /

his record is correct
Joseph Katz
Parent or Guardian

L. J. Hoover.
Principal of School

Diagram of garden

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A blank ledger page with a central vertical column and horizontal ruling lines. The page is divided into three main sections by a thick vertical line: a narrow left margin, a wide central column, and a narrow right margin. The entire page is ruled with horizontal lines, creating a grid-like structure for data entry. The paper is aged and slightly discolored.

FINANCIAL RECORD

Month	Charges	Credits
April	65	
May	50	20
June	75	110
July		368
Aug.		154
Sept.		265
Oct.		167
Total	190	944
Profits		894

Visits		Fair		
Date	Date	1 st.	2 nd.	3 rd.
4-28	95			
5-17	95			
5-30	85			
6-15	95			
7-1	100			
7-19	95			
8-3	95			

FINAL

Garden 95... per cent.

Record **98** per cent.

Fair per cent.

The final average of points scored by the member is 97

member is 97
Chas. Orchard Smith
 Supervisor of gardens

APPENDIX.

A GARDEN NOTE BOOK.

This is to certify that

Isidore Katz

is a member of the

Senior Gardening Club

branch of the

ENGLEWOOD

Gardening Clubs

having been recommended by

Joseph Katz

Parent or guardian

W. W. Staver

Principal of school

and approved by

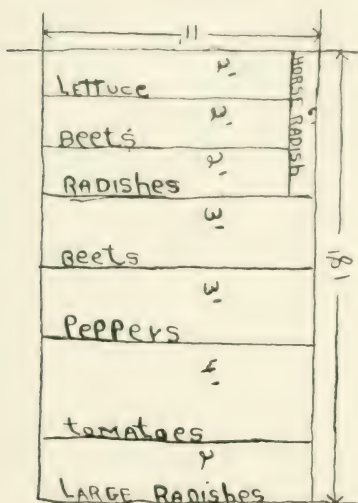
Edgar Bloxson

President of branch

Chas Orchard Smith

Supervisor of gardens

THE WORKING PLAN OF MY GARDEN



$\frac{1}{2}$ of GARDEN

Size 18'x22'

Scale $\frac{1}{4}" = 1'$

ISIDORE KATZ

ITEMIZED ACCOUNT

[illegible]

THE STORY OF MY GARDEN

We started digging our garden about April 10, 1916. The digging took till May 1, 1916. When it was evened we divided it into two parts by putting a path in the middle.

On May 1, we started planting our seeds. The first thing we planted was radishes. We planted four rows of red globe, two rows of long and one of lady finger radishes.

The next three rows were carrots. They came up in a week. At first they looked like blades of grass, but later they got their second leaves and looked like something.

After the carrots we left a space for the coming lettuce. When the latter was large enough to transplant we made holes about a foot apart and there put the plants in. The lettuce was very good and we made a good profit on them.

Below the lettuce we planted cabbage. After the cabbage was gone we planted Golden Bantam but being so near to the fence we had to get Golden Bantam because the hedge took all the food that was supposed to be for the corn. This is only one half of the garden now will tell you about the other half.

At the top we planted five rows of beets which came up very well. Below we planted Lima beans. Below these we had eight tomato plants which bore a crop of two bushels of tomatoes.

2

THE STORY OF MY GARDEN

Alongside the fence we planted more corn. Between the corn and beets were cucumbers which died when the first frost came. Below these we planted string beans.

We tried intercropping. We planted lettuce between tomatoes, beets, radishes and carrots. We planted cabbage between the tomatoes. After the globe radishes were gone we planted black radishes. These did not come up very well so we took them out and planted spinach.

In place of the lady finger and French radishes we planted peas which came up very good but did not give a large crop. In place of the lettuce we planted radishes and beets. We had three rows of each.

The radishes were soon gone but the beets remained. After the beets ~~the~~ planted string beans, which came up in three days. We had about 6 rows and got twelve qts of good sized beans.

Below the beans we planted one row of parsley. The parsley was good and grew fast but we could not sell it. After the parsley was planted the beets began to go.

When the frost came in October the stuff began to freeze and just the hardy thing remained. Where we had the spinach we made a hotbed. We enjoyed gardening very much and we intend to have a larger garden next year.

Doris E. K. 1917

2 30/10/24

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U.S. Bureau of Ed.
 Bulletins. 1917.
 nos. 19 to 28.

8/1

139 26/1/17

17/5/17

NOTICE TO BORROWER

This card is to be kept in this pocket and returned with the book.

No book will be loaned without presentation of the borrower's card.

This book must be returned on or before the last date stamped on the card.

If not requested by another borrower the loan may, on application, be renewed.

This book must not be marked or mutilated in any way.

In case of loss its value must be paid to the Librarian.

Any violation of these rules may deprive the borrower of any further privileges of the Library.

Department of Education, Toronto.

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